

FIG. 1

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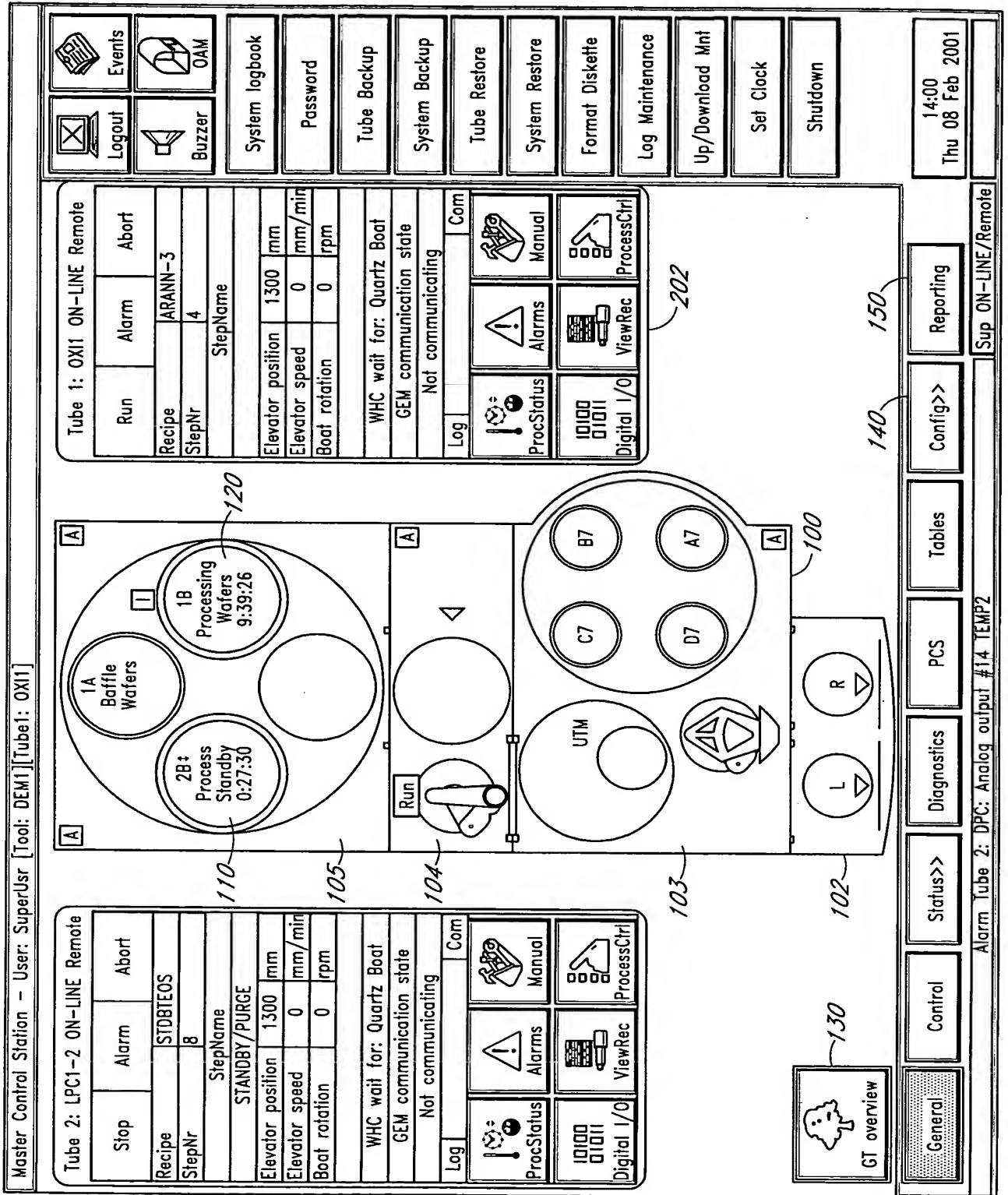


FIG. 2

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Report: Green Tool overview - [Tool: DEM1]

Start time: 2000-10-01 00:00:00 End time: 2000-11-01 23:59:59

Channel	Unit	T1: OX1	T2: LPC1-2	Σ
Ar	SL	8182.59	-	8182.59
DCS	SL	-	455.40	455.40
Exhaust	M ³	11309540.24	11252595.11	22562135.35
H2	SCC	8447.01	-	8447.01
N2	SL	433219.72	1876721.98	2309941.70
N2 Carousel	SL	354198.17	-	354198.17
N2 Purge	SL	193544.55	6305.37	199849.92
N2-Bubbl	SL	360.59	-	360.59
NH3	SL	-	0.00	0.00
NO	SL	259.55	-	259.55
O2	SL	12991.83	-	12991.83
PH3/N2	SCC	-	1391717.47	1391717.47
Power	Kwh	53.87	41.28	95.15
SiH4	SL	-	0.00	0.00
Teos	SL	-	5613.88	5613.88
Water	L	1945579.87	15893389.20	3534918.07

Exit Filter Print Print Setup Export

Alarm Tube 2: WHC: BTM Arm: WHR door switch

FIG. 3

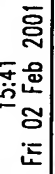


FIG. 4

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Green Tool Configuration editor - [Tool: DEM1]

Consumables	
N2 (oxi1)	
N2-Bubbl (oxi1)	
N2 Carousel () [MANUAL EDIT]	
O2 (oxi1)	
NO (oxi1)	
Ar (oxi1)	
H2 (OXI1)	
Exhaust (OXI1)	
Water (OXI1)	
N2 Purge (OXI1)	
Power (OXI1)	
N2 () [MANUAL EDIT]	
SIH4 () [MANUAL EDIT]	
NH3 () [MANUAL EDIT]	

Exit Edit New Delete

Print all Consumables

Save and Exit

Configuration User Interface Recipe Sequence Safety Interlocks Green Tool INL Configuration Logout Events OAM Buzzer

15:42 Fri 02 Feb 2001

Alarm Tube 2: WHC: House vacuum

<<Config DPC DTC WHC CHC MSC

FIG. 5

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Green Tool Configuration editor - [Tool: DEM1]

Consumable: 02		Source: ox11	Units	SL	measured per Minute	>>
I/O Channel	Correction	When	=	(and)		
A0 3: 02-High	>>	>>		>>		>>
A0 4: 02-Low	/	1000	DO 4: 02-Low	>>	1	>>
+	>>	>>		>>		>>
+	>>	>>		>>		>>
+	>>	>>		>>		>>
+	>>	>>		>>		>>
+	>>	>>		>>		>>
+	>>	>>		>>		>>
+	>>	>>		>>		>>
+	>>	>>		>>		>>

OK Cancel

<<Config DPC DTC WHC CHC MSC

Alarm Tube 1: WHC: BTM Arm: WHR door switch

12:13
Fri 02 Feb 2001

Events
Logout
Buzzer
OAM
Configuration
User Interface
Recipe Sequence
Safety Interlocks
Green Tool
INL Configuration

FIG. 6

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Green Tool Configuration editor - [Tool: DEM1]

Consumable: Power

Source OXI1

Units Kwh

measured per Hour

I/O Channel	Correction	When	=	(and)
Power zone: 1	>> *	>> 6.327	>>	>>
+ Power zone: 2	>> *	>> 28.319	>> 1	>>
+ Power zone: 3	>> *	>> 28.92	>>	>>
+ Power zone: 4	>> *	>> 10.283	>>	>>
+ Power zone: 5	>> *	>> 13.283	>>	>>
+ Power zone: 6	>> *	>> 4.964	>>	>>
+	>> /	>> 100	>>	>>
+	>>	>>	>>	>>

OK

Cancel

<<Config

DPC

DTC

WHC

CHC

MSC

Alarm Tube 2: DPC: Analog output #13 TEMP1

12:12
Fri 02 Feb 2001

Events

Logout

Buzzer

OAM

Configuration

User Interface

Recipe Sequence

Safety Interlocks

Green Tool

INL Configuration

FIG. 7

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Master Control Station - User: SuperUsr [Tool: DEM1][Tubet: OX11]

Tube 2: LPC1-2

Stop	Alarm	Abort
Recipe	STDBTEOS	
StepNr	8	
StepName		
STANDBY/PURGE		
Elevator position	1300	mm
Elevator speed	0	mm/min
Boat rotation	0	rpm
WHC wait for: Quartz Boat		
GEM communication state		
Disabled		
Log	Com	
<div style="display: flex; justify-content: space-around;"> ProcStatus Alarms Manual </div>		
<div style="display: flex; justify-content: space-around;"> <div>Digital I/O 10100 01011</div> ViewRec ProcessCtrl </div>		

Tube 1: OX11

Run	Alarm	Abort
Recipe	T1MAIN	
StepNr	1	
StepName		
Elevator position 1300 mm		
Elevator speed 0 mm/min		
Boat rotation 0 rpm		
WHC wait for: Quartz Boat		
GEM communication state		
Disabled		
Log	Com	
<div style="display: flex; justify-content: space-around;"> ProcStatus Alarms Manual </div>		
<div style="display: flex; justify-content: space-around;"> <div>Digital I/O 10100 01011</div> ViewRec ProcessCtrl </div>		

Tube 2: LPC1-2

1A
Baffle
Wafers

1B
Move to
Process
999:99:99

2B+
Process
Standby
0:27:30

Tube 1: OX11

D5

C5

A5

B5

Stop

L

R

Tube 2: LPC1-2

D5

C5

A5

B5

Tube 1: OX11

D5

C5

A5

B5

Stop

L

R

Tube 2: LPC1-2

D5

C5

A5

B5

Tube 1: OX11

D5

C5

A5

B5

Stop

L

R

Tube 2: LPC1-2

D5

C5

A5

B5

Tube 1: OX11

D5

C5

A5

B5

Stop

L

R

Tube 2: LPC1-2

D5

C5

A5

B5

Tube 1: OX11

D5

C5

A5

B5

Stop

L

R

Tube 2: LPC1-2

D5

C5

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B5

Tube 1: OX11

D5

C5

A5

B5

Stop

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R

Tube 2: LPC1-2

D5

C5

A5

B5

Tube 1: OX11

D5

C5

A5

B5

Stop

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R

Tube 2: LPC1-2

D5

C5

A5

B5

Tube 1: OX11

D5

C5

A5

B5

Stop

L

R

Tube 2: LPC1-2

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C5

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Tube 1: OX11

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Stop

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Tube 2: LPC1-2

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Tube 1: OX11

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Stop

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Tube 2: LPC1-2

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Tube 1: OX11

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C5

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B5

Stop

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R

Tube 2: LPC1-2

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Tube 1: OX11

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Tube 2: LPC1-2

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Tube 1: OX11

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Stop

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Tube 2: LPC1-2

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Tube 1: OX11

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B5

Stop

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Tube 2: LPC1-2

D5

C5

A5

B5

Tube 1: OX11

D5

C5

A5

B5

Stop

L

R

Tube 2: LPC1-2

D5

C5

A5

B5

Tube 1: OX11

D5

C5

A5

B5

Stop

L

R

Tube 2: LPC1-2

D5

9/11

Report: Green Tool detail - [Tool: DEM1][Tubet: OX1]

Star

Time Stamp

Report Search Criteria

Quick select

This Day

This Week

This Month

Resolution select

Calendar week

Time Span

Start

Mon

Week

22

29

May

2000

End

Sun

Week

26

02

Jul

2000

lock

Sample date:

Exit

Ok

Cancel

Alarm Tube 2: WHC: House vacuum

FIG. 9

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Report: Green Tool detail - [Tool: DEM1][Tubel: OX1]

Start time: 200 Channels Selection

Time Stamp

Sample date: [] [] [] [] [] []

Exit

Available channels

Nr of channels: 6

Selected channels

NO
N2 Carousel
Ar
N2 Purge
Power
N2

NO
N2 - Bubbl
N2 Carousel
O2
NO
Ar
H2
Exhaust
Water
N2 Purge
Power

Add to selection>>

Delete

Delete all

Ok

Cancel

Unmark Block

FIG. 10

Alarm Tube 2: WHC: House vacuum

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Report: Green Tool detail - [Tool: DEM1][Tubel: OX11]

Start time: [2000-05-29 00:00:00] End time: [2000-07-02 23:59:59]

Time Stamp	N2 SL	N2 Carousell SL	Ar SL	N2 Bunge SL	Power Kwh	N2 SL
Wk22 2000-05-29	0.00	192433.27	95.20	46078.92	7.96	98484.69
Wk23 2000-06-05	0.00	209270.93	100.10	30542.02	7.89	97302.21
Wk24 2000-06-12	0.00	56008.93	101.35	15117.32	25.80	62757.88
Wk25 2000-06-19	0.00	248741.58	104.47	49076.31	6.46	96316.30
Wk26 2000-06-26	0.00	166886.02	55.41	19722.24	3.80	52603.92

Σ 0.00 973340.73 456.53 160536.81 51.91 407465.00

Sample date: [2000-05-29] Sample Nr: [1] Nr of samples: [5]

Alarm Tube 2: WHC: BTM Elevator: Timeout

FIG. 11